precision of such rhythms to synchronize playback and create new mixes of music. Computer systems can be particularly helpful in the synchronization of such music because of the capacity of computers to combine and process audio signals, maintain large libraries of songs, and store such creations for later delivery.

[0005]   One of the challenges in creating music collages on computer systems is that music is recorded in a wide range of different tempos. Understandably, music that is recorded at one tempo does not sound good when mixed with music recorded at another. Thus, knowing the tempo and downbeat is important in the creation and editing of music. Nevertheless, music recordings on compact discs (CD), tapes, or other media, generally do not include information on tempo in the recorded signal. It is, therefore, difficult (if not impossible) to properly mix musical media with other musical recordings without having tempo information.

[0006]   Thus, there is a need for a system for and a method of determining the period of recurring events within a recorded signal. Further, there is a need to precisely identify tempo of a recorded signal so that multiple recorded signals can be successfully mixed together. Even further, there is a need to synchronize musical loops and other musical media to any song and to other time based events such as video, animation, lights, or other timing critical devices.

[0007]   The teachings hereinbelow extend to those embodiments which fall within the scope of the appended claims, regardless of whether they accomplish one or more of the above-mentioned needs.

SUMMARY OF THE INVENTION

[0008]   An exemplary embodiment relates to a method of determining one or more periods of recurring events within a recorded signal. This method can include establishing one or more anchor points in the recorded signal where an anchor point is indicative of a beginning point for a period of recurring events in the recorded signal, determining a length for the period of recurring events in the recorded signal where the length starts from the established anchor point and defines a first loop, and refining the length for the period of recurring events by